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A Comparative Pragmatic Analysis of AI-Generated and Human Apologies in Iraqi EFL Learners

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Abstract
The present study examines the use of apology strategies in the responses of artificial intelligence and Iraqi learners of English as a foreign language. The primary research question is whether artificial intelligence is pragmatically competent like language users in producing apology responses. The study aims to compare and contrast similarities and differences in the use and distribution of apology strategies according to Cohen and Olshtain (1981) and politeness theory by Brown and Levinson (1987). This study is significant in assessing the feasibility of artificial intelligence as a framework for developing pragmatic competence and its application to cross-cultural communication. This study employs a comparative approach using a discourse completion task comprising fourteen situations that prompt apologies. Seven hundred responses were generated by artificial intelligence, and seven hundred responses by Iraqi EFL learners of English. The responses are analyzed in terms of primary apology strategies such as explicit apology, acceptance of responsibility, explanation, offer of repair, and promise of forbearance, and politeness strategies associated with power and social distance. The analysis shows structural similarities but differences in emotional and contextual nuance. This study suggests the need for future research into pedagogical applications.

Keywords: AI-generated apologies, apology strategies, artificial intelligence, cross-cultural pragmatics, pragmatic competence
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Introduction

Apologies are social actions that attempt to repair relationships, build trust, and maintain social harmony after an error (Aydin, 2013). They are laden with linguistic and emotional connotations, making them central to cross-cultural communication (Smith, 2008). Hypothetically, Speech Act Theory (Austin, 1962; Searle, 1969) has also theorized apologies as acts of performance, and Politeness Theory, which considers apologies as face-management strategies (Brown & Levinson, 1987). Other models, such as those of Olshtain and Cohen (1983) and pragmatic competence models (Thomas, 1983), also indicate that social and cultural norms influence the application of apologies. Apologies are also significant with the emergence of AI in communication, as they are relevant to human-AI interaction. When AI does not meet user expectations, appropriate apologies can help regain trust and foster collaboration (Glikson & Woolley, 2020). Nonetheless, AI apologies should align with human societal expectations, particularly because users often treat AI as a human.

Despite many studies on the topic of apology, no studies have examined how EFL learners, particularly in the Iraqi context, compare AI and human apologies. This research paper fills that gap by evaluating the apology strategies of Iraqi EFL learners and AI, using Cohen and Olshtain (1981) and Brown and Levinson's (1987) politeness theory. It explores similarities and differences in the use and distribution of apology strategies across various social contexts, including explicit apologies, responsibility, explanation, repair, and promise of forbearance, as well as politeness factors related to power and social distance. The study is important since it is relevant to interlanguage pragmatics by assessing the extent to which AI can simulate pragmatic competence, and for cross-cultural language use and teaching. To that end, the study seeks to answer questions related to the apology strategies produced, their frequency, differences in politeness realization, and the degree to which AI is similar to or different from human performance.

Literature Review

Politeness Theory

Brown and Levinson (1987) claimed that social norms and relationships govern language use, and that language is the negotiation of face, or public self-esteem. They propose positive face (the need to be accepted) and negative face (the need for freedom from imposition) as the two basic needs. This conception of apologies in this framework is that they are a face-threatening act (FTA) as they involve responsibility-taking and may lead to the loss of status. At the same time, face-saving is yet another purpose of apologies that restores the respect of the hearer and the normal social balance. This is linked directly to the current study's coding scheme, in which elements of apologies (such as IFIDs, explanations, and repair statements) are classified according to how they manage face. To manage the tension caused by the offense, speakers employ different politeness strategies, including direct (bald-on-record), positive politeness (offer of solidarity), negative politeness (reduction of imposition), and indirect (off-record) politeness strategies. The need for accountability and the need to save face for both parties are also balanced by their decisions, especially in a second- language (L2) environment, where societal rules can differ. More recent works, e.g., Taguchi and Kadar (2023), have confirmed this view, which means the speaker should risk his face to make the hearer feel better. Their findings showed that explicit strategies (IFIDs and explanations) are more common in L2 learners. Nevertheless, they cannot typically apply positive and negative politeness as they should, and so it is once again evident that the Brown and

Levinson (1987) model is a valuable tool in interlingual pragmatic studies investigating apology behavior.

Speech Act Theory

Speech Act Theory proposes that language is action, rather than communication, as defined by Austin (1962) and Searle (1979). In this view, apologies are some types of speech act that plays a role in accepting responsibility, expressing regret, softening social offense, repairing damage, and renewing relationships. Austin's locutionary, illocutionary, and perlocutionary acts help clarify that apologies are not words but rather must be viewed in terms of their communicative purpose and effect. Searle builds on this analysis by drawing attention to the affective and interpersonal aspects of speech acts that guide speakers' social obligations. Such theoretical understandings have implications for the coding categories in this study, where components of an apology were identified according to their form, illocutionary force, and perlocutionary effects. For instance, IFIDs, responsibility, and repair are selected as strategies based on their illocutionary force. Expanding on this, Assimakopoulos (2025) conceives apologies as flexible and fluid, affected by factors such as power, culture, and expectations, further emphasizing the need for adaptive categories. As for language learning, pragmatic competence refers to the adaptive use of strategies.

AI and Politeness

AI systems regulate politeness by incorporating human social norms, such as politeness, indirectness, face-saving, and respect into their interaction design, enabling them to generate socially acceptable responses. This is achieved through pre-programmed linguistic conventions and algorithms that manage how politeness is expressed and realized. AI can vary in politeness based on situational and user factors to display adaptability. The aim is to avoid face-threatening acts and encourage cooperation. Politeness strategies also enhance user trust, satisfaction, and acceptance of the system. Additionally, AI mimics interpersonal awareness to create a more human-like interaction. Therefore, politeness in AI is a regulated, functional approach to increase the effectiveness of communication (Ribino, 2023).

Politeness management in AI involves designing interactions with varying levels of politeness and enabling systems to adapt their language and behavior to different situations and user preferences. This can be done in a controlled way by managing linguistic and behavioral expressions indicative of politeness, such as varying levels of directness, tone, and formality. This research shows that users perceive these levels, establishing that AI politeness is systematic. Furthermore, AI can adjust its communicative style in various situations to improve its effectiveness and user satisfaction. Greater politeness leads to better satisfaction, enjoyment, and trust, showing the value of politeness management. Finally, AI can also adjust its politeness level for different users, demonstrating the adoption of an interactive approach. Thus, politeness in AI is a controlled, flexible, and context-responsive aspect of intelligent systems (Kumar et al., 2022)

AI-generated Apologies

Recent research on conversational AI demonstrates that AI can generate structures similar to apologies, but the responses are formulaic and lack variability in accountability and emotional intensity. Research in computational linguistics shows that language models generate responses that display pragmatic forms without a complete understanding of communicative appropriateness and face management aspects (Zhou et al., 2020). In cross-cultural contexts, this issue is more

apparent in that the realization of an apology draws on interpersonal meaning, cultural expectations, and social norms.

Studies on Arabic Apology Norms

Literature in Arabic studies on pragmatics shows that experience and power play a role in the politeness of apologies of Saudi learners. Older and younger members use longer apologies to minimize imposition and to show their respect. This reflects the social and cultural influence on apologies in the academic world. (Farrag, 2022). Similarly, Elasfar et al. (2023) demonstrate that cultural differences lead to variations in request and apology strategies, underscoring the need for better pragmatic competence in Arab learners.

Particularly, Iraqi English as a foreign language learners typically employ explanation and account strategies due to pragmatic transfer from socio-pragmatic norms in Arabic. The results are consistent with other studies of pragmatic performance in Arabic, which show that apology is context-bound and influenced by power relations and relational norms. This research builds on Cohen and Olshtain's apology model (1981) and Brown and Levinson's (1987) politeness model, informing the coding of apology strategies into explicit apology expressions, acceptance of responsibility, explanation, repair offer, and promise of forbearance, and considering the role of power dynamics and social distance in strategy use. This combined approach enables comparison of apology responses generated by AI with those generated by Iraqi learners. While there have been many studies on apology strategies in Arabic and English as a foreign language, these have tended to focus on human learners or artificial intelligence in isolation. This study contributes much-needed empirical evidence comparing the output of AI apology strategies with Iraqi learners' pragmatic performance within the same analytical framework, particularly in culturally sensitive pragmatic domains, such as the realization of apologies in Arabic. This underscores the need for a comparative study to assess AI pragmatic performance towards human pragmatic proficiency in context.

Methodology

Research Design

The analysis compared Iraqi EFL learners' production and comprehension of apologies in response to AI-generated apologies, using Cohen and Olshtain's (1981) framework, including social factors of power, social distance, and degree of offense. The learners' and AI responses were generated based on the same scenarios, facilitating a comparison of pragmatic strategies in different contexts. It was designed as quantitative, comparative, corpus-based research, comparing the pragmatic use of Iraqi EFL learners and AI apologies. Figure 1 shows the comparative model of the human and AI corpus.

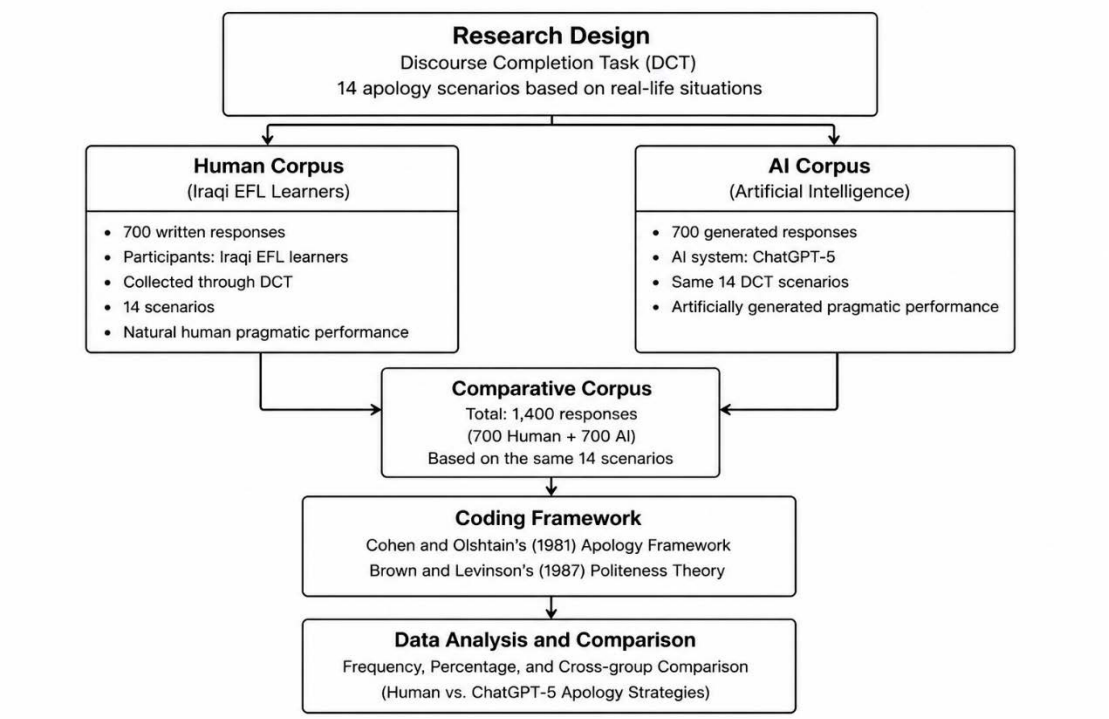


Figure 1. Comparative design of human and artificial intelligence apology corpus

Participants

This study involved 50 Iraqi undergraduate EFL students from the Department of English at the University of Anbar, who spoke Arabic as their mother tongue. They came from their first to fourth university years, spanning various levels of study. They had an English proficiency level of intermediate to upper-intermediate according to placement guidelines at the University of Anbar, which employs course-based testing and students' progression in the program, rather than a separate English language proficiency test. There were 26 women and 24 men, aged 18-25 years. Participants were from a similar dialect of Arabic, most likely Anbari Arabic, to establish language uniformity. EFL students were recruited through convenience sampling from accessible classes at the University of Anbar. This method enabled the quick recruitment of active English learners from different levels of study. However, using convenience sampling may limit the ability to generalize the results as findings may not apply to all EFL learners in Iraq, across other areas, or at other universities. However, the sample representation of different academic years and an equal number of males and females ensured internal variation in the data set used for comparison.

Research Instruments

The present study used a Discourse Completion Task (DCT) questionnaire to gather participants' responses to apologies in various real-world scenarios. The DCT is a common tool for studying the pragmatics of language use (Golato, 2005; Turki et al., 2020). These situations reflected different interpersonal relationships (e.g., teacher-student, peer-peer) and contextual variables including power, social distance, and offense severity. We identified the apology strategies based on Cohen and Olshtain (1981) and Brown and Levinson (1987) politeness theory, such as expressions of regret, responsibility, explanation, repair, and forbearance. For the AI-

generated data, we used ChatGPT (GPT-5) with experimental settings. The same prompts were used, and regeneration, re-prompting, and resetting were avoided to standardize the results across cases. The responses were captured and documented in a corpus for analysis. The responses of Iraqi EFL learners and AI were coded using a framework, Cohen and Olshtain (1981) and Brown and Levinson (1987), based on a framework that identifies 10 apology strategies. The coders applied the framework carefully and checked for accuracy several times**.**

Data Collection Procedures

The two-step data collection process used the same 14 DCT scenarios as the main data collection device. Under special conditions (no extra help and a time limit of one hour), 50 undergraduate students answered the scenarios from first to fourth stage, and respondents were expected to answer questions based on one answer to all scenarios to establish spontaneous, natural-language conditions, which led to 700 answers given by the Iraqi EFL speakers. The second step was to generate AI responses using ChatGPT under controlled conditions with the same prompts applied to all situations, resulting in 700 responses. Overall, the study resulted in a balanced corpus of 1,400 apologies (700 Iraqi EFL and 700 AI) with all tasks, contexts, and communicative implications the same, which allowed conducting a systematic and reliable comparison of both corpora.

Data Analysis

The paper assessed the responses to the apology based on the Olshtain and Cohen (1981) framework and highlighted the key strategies: IFIDs, assuming responsibility, explaining, repairing, and promising forbearance. The analysis identified not only these strategies but also analyzed the language used and how well they represent contemporary social and cultural norms. The politeness model, formulated by Brown and Levinson (1987), was employed to analyze the participants' performance in relation to positive and negative face in all types of social relations. The quantitative methodology entailed the frequency and percentage of each strategy within a controlled context and naturally occurring data, allowing an organized comparison of AI-generated and Iraqi EFL learners' responses, particularly in how Iraqi EFL students manipulate hierarchical relations, unlike AI systems. The statistical analysis was conducted in IBM SPSS and included chi-square tests to assess relationships among the participant type and the strategy applied in the 14 scenarios. There is a significant difference when $p < 0.05$. In general, methodology offered a systematic approach to the differentiation of functional and structural features of apologies. Concerning the strategy coding, each response belongs to one or more strategies, and the 14 Discourse Completion Test (DCT) scenarios tend to be more general in their prediction of how Iraqi EFL learners and AI would respond in terms of apology behavior, depending on the social context, interaction pattern, and severity of the offense. The fourteen DCT scenarios adopted in this study are outlined in Appendix A.

Results

The systematic analysis of the 14 scenarios reveals clear differences between AI strategies and the strategies of Iraqi EFL learners (Table 1). Apologies are advanced as a complex process that involves responsibility, regret, restorative effect, and servicing of social connection (Olshtain & Cohen, 1983). They are very reliant on clear IFIDs, brief and factual explanations of the nature of the repair offers, standardized phrases of apology and guarantees, and a pre-set, hierarchical style

in which their reaction is determined not by conditions, but by pre-established rules. Compared with the contextual and relative apology of the Iraqi EFL students. Social relationships, status differences, and unique circumstances affect their strategies and expressions of regret, responsibility, and repair.

IFID (Explicit Apology)

The Iraqi EFL learners and AI displayed very high usage of IFIDs, suggesting that explicit apology expressions are crucial in both data sets. AI showed slightly higher usage (94%) versus Iraqi EFL learners (92%), with somewhat more stable use of fixed apology expressions. Iraqi EFL learners, on the other hand, showed more diversity in the integration of IFIDs in contextual responses. Both datasets showed equally high IFID usage frequencies.

Acknowledgment of Responsibility

AI showed a greater preference for responsibility acknowledgment (77% vs. 66% of Iraqis' responses). AI consistently maintained a stance of clearly accepting blame in most scenarios. EFL Iraqi students, on the other hand, tended to mitigate or indirectly accept responsibility in some scenarios. So, responsibility acknowledgment was higher in AI compared to the learners' responses.

Explanation / Account

Both AI (42%) and Iraqi EFL learners (39%) provided explanations at a quite similar rate. But AI explanations tended to be short, generic, and formulaic. Iraqi EFL learners' explanations were more contextualized based on the scenario and addressee. Both groups demonstrated a quite similar frequency of explanations found in the dataset.

Offer of Repair or Compensation

AI tended to use repair strategies more (57%) than Iraqi EFL learners (53%). AI showed more use of procedural strategies to repair the problem. The Iraqi EFL learners' responses, on the other hand, display both repair and relational strategies that seek to rebuild trust and preserve good relations. In general, the frequency of repair strategies in AI and learner responses was comparable.

Promise of Forbearance

AI generated a higher percentage of promises of non-recurrence (31%) compared to Iraqi EFL learners (25%). AI tended to be more assertive in declaring not to make the mistake again. Learners, meanwhile, displayed more adaptable and flexible expressions based on context. Promises of non-recurrence were more prevalent in the AI responses.

Regret and Emotional Expression

The results indicated a slight difference in the use of affective language, with Iraqi EFL learners expressing it more frequently (57%) than AI (53%). Their answers were more empathetic and emotional, particularly in delicate matters, whereas AI answers, though accurate, were based on repetitive emotional expressions and lacked depth**.**

Formal Address and Power Sensitivity

Formal address was more varied in Iraqi EFL learners (55%) than in AI (46%). It shows that they can regulate the level of politeness depending on the social hierarchy and situation. In all cases, AI was more consistent and formal.

Negative Politeness or Minimizing Imposition

Negative politeness strategies were more commonly employed in AI (45%) than in Iraqi EFL students (35%). The AI mitigation was more formulaic and repetitive. The Iraqi EFL learners used mitigation more adaptively depending on the severity and interpersonal relationships.

Solidarity and Empathy Markers

Iraqi EFL learners significantly applied more solidarity and empathy marks (43%) than AI (38%). Emotional alignment and relational repair expressions were frequently found in their reactions. There was a stronger procedural response in AI and less interpersonal interaction.

Informal Tone

The informal tone was more common with the Iraqi EFL learners (25%) than with AI (17%). This shows more flexibility in shortening social distance and establishing rapport. AI was very formal and did not change much depending on the context.

Table 1. *Average percentage of apology strategies used by AI and Iraqi EFL participants across all scenarios*

Strategy	AI Average (%)	Human Average (%)
Illocutionary Force Indicating Device (IFID)	94	92
Acknowledgment of Responsibility	77	66
Explanation / Account	42	39
Offer of Repair / Compensation	57	53
Promise of Forbearance / Commitment	31	25
Regret / Emotional Expression	53	57
Formal Address / Power Awareness	46	55
Negative Politeness / Minimizing Imposition	45	35
Solidarity / Empathy Markers	38	43
Informal Tone	17	25

Statistical Analysis between AI and Iraqi EFL learners apology

Statistical comparisons of the 14 scenarios (Appendix B) revealed that the 5 cases that exhibited statistically significant differences between the AI and the Iraqi EFL learners ($p < 0.05$) included Scenarios 1, 3, 5, 7, and 11. The remaining 9 scenarios did not exhibit any statistically significant differences ($p > 0.05$), which implies that there were similarities between most cases. The largest difference was in Scenario 7 ($p = 0.011$), with a more frequent occurrence of apology strategies exhibited by AI (332) than by Iraqi EFL learners (206). Scenario 1 also illustrates a clear difference (AI = 318, Iraq EFL learners = 292, $p = 0.029$). In general, the findings indicate that AI will produce more concentrated and repetitive apology texts in particular situations, whereas human reactions are more diffuse and situation-specific.

Discussion

The study examined the differences between Iraqi EFL learners and AI in the generation of apology strategies in various contextual situations and their impact in indicating pragmatic competence, contextual sensitivity, and formulaicity in language use. Strong evidence indicates that there is convergence in core apology structure, as well as divergence in pragmatic depth, contextualization, and emotional involvement. Both categories continue to depend on comparable elements of the apology, particularly IFIDs, but vary greatly in the way they actualize the strategies with reference to social context, interpersonal meaning, and communicative intent.

The results affirm that IFIDs prevail in both groups as the apology strategy, which is in agreement with Cohen and Olshtain (1981). Nonetheless, Iraqi EFL learners are more contextually flexible by adapting IFIDs based on power relations, social distance, and emotional tone. This reinforces the politeness theory described by Brown and Levinson (1987), which highlights the use of language in face-threatening behaviour that has situational sensitivity. Furthermore, the Iraqi EFL learner is more likely to incorporate IFIDs into larger discourse repetitions and usually intermixes them with explanation, remorse, or defending, which increases the richness of pragmatics. It means that the IFIDs are utilized not independently but as a negotiated communicative act. Conversely, AI is based on repetitive and standardized IFID phrases, production patterns are formulaic, and pragmatic adaptability is limited. This implies that AI gives less emphasis on variability based on context in favor of grammatical correctness and explicitness. These results align with the findings by Chen et al. (2022), who state that pragmatic appropriateness is due to situational alignment and not frequency alone. Therefore, although AI provides clarity, it is not subject to the same subtlety of variation that prevents human pragmatic competence itself.

AI is more likely to accept responsibility explicitly and make direct and uncomplicated statements of fault. Such explicitness often produces the effect of transnationality and efficiency and lowers pragmatic complexity. Iraqi EFL learners, however, strike a balance between responsibility and mitigation strategies to maintain social harmony and mitigate possible threat to face. Moreover, Iraqi EFL students tend to spread responsibility within contextual forces, like situations or outside influences, and this is an indicator of a more socially negotiated sense of accountability. This action is also consistent with Brown and Levinson (1987), who note that speakers handle politeness by saving both positive and negative face. It is also in line with Ibrahim (2025), who points out that both responsibility and interpersonal sensitivity are needed during apologies. In this regard, Iraqi EFL students exhibit a more social, strategic, and adaptive way, and AI uses a more mechanical and consistent pattern of responsibility recognition.

The pragmatic quality of both groups is quite different, though they appear to be similar in terms of the frequency of provision of explanations. The explanations provided by AI are short, factual, and have uniform organization; they are not interpersonal - based. Such explanations are more remote from the relations and do not involve a narrative explanation. Conversely, Iraqi EFL students are more elaborate and context-sensitive in their explanations, and frequently incorporate situational elaboration, emotional warranting, and relational awareness. This causes their elucidations to be not merely clarification tools but also some form of what might be termed as repair mechanisms to social harmony. This serves the Barron (2021) idea that attaches weight to narrative structure and relational embedding with human pragmatic performance. The results indicate that AI is not contextually embedded and socially grounded, which diminishes the effectiveness of interpersonal explanations. Consequently, human accounts serve not only to

explain the events but also to restore confidence and to preserve relational stability, but AI accounts are mainly informative.

AI is more procedural and task-oriented in its repair strategies, paying attention to correcting the problem directly. These are effective, problem-solving, and predictable reactions, yet they are often unemotional or disinterested. Iraqi EFL learners, however, extend repair strategies into the material correction and incorporate emotional repair, relationship care, and social restoration. They are frequently responding so as to minimize emotional hurt and repair interpersonal confidence, rather than correct the problem. This is consistent with the argument expressed by Yang (2024), who says that efficient apology strategies are not solely based on correction but also empathy and relationship mends. Thus, although AI is functional in its resolution capabilities, it is weak when it comes to interpersonal restoration, an important aspect of human apology behavior.

AI generates more frequent and absolute non-recurrence promises of forbearance, which are frequently produced in inflexible and formulaic languages, like this will never happen again. They are syntactically explicit and semantically homogenous. The Iraqi EFL learners, on the contrary, are more flexible and situationally adjusted. Their promises are frequently characterized by a conception of duty, yet not too great an absolute, a device which keeps credibility and social balance. This is similar to the perspective held by Brown and Levinson (1987) that the strategies of politeness are situational and negotiated. It is also consistent with Gao and Yan (2022), who point out that repair of trust is not reliant on the formulaic assurance but on the perceived sincerity and topicality. In this way, AI can decrease apparent authenticity even though it is grammatically right.

The expression of regret or emotion is an important element of apology. In context-sensitive or high-stakes situations, with empathy and concern more evident in Iraqi EFL learners, they are more emotionally engaged. Their apologies are morally conscious and socially responsible. Conversely, AI reactions are based on repetitive emotional schemata that do not contain true affective content. Although AI can replicate emotional language rather well, it lacks any emotional comprehension or experience. This confirms Coeckelbergh (2020), who maintains that AI can replicate emotional language without necessarily having any actual emotional experience and moral insight. Therefore, human apologies tend to be more sincere and natural, whereas AI-generated ones are seemingly formal and mechanical.

The Iraqi EFL learners exhibit more flexibility in the formality depending on the social hierarchy, distance, and communicative intention. This enables them to maintain respect as well as relational intimacy in any circumstance. However, AI is always in a strictly formal form regardless of social and spatial diversity. Such rigidity affects its practical flexibility, especially in delicate situations involving interpersonal situations. This aligns with Haugh and Kadar (2017), discussing politeness as the dynamic system formed through a continuous evaluation of relationships. Thus, AI has a limitation of authentic social variability due to its homogeneity. AI shows greater negativities in terms of using negative politeness strategies, which tend to be repetitive and formulaic. Iraqi EFL learners, on the other hand, are more strategic with mitigation, which is modified depending on the severity of the offense, the distance of the social aspects, and the relation involved. Besides that, Iraqi EFL learners would integrate mitigation with empathy and emotional softening that improve relational effectiveness. This follows Culpeper and Tantucci (2021), who stress the adaptive use of context in the face of mitigation, not a fixed language form. Thus, human learners show a deeper control over politeness strategies, whereas AI uses mitigation as a default mechanism for generalization.

The results show that Iraqi EFL students employ more solidarity and empathy indicators than AI. The answers provided by them are emotional alignment, concern, and repairing of the relationship that reinforce interpersonal relationships and facilitate reconciliation. The responses of AI, however, are procedural and not emotionally involved. In the case where empathy markers exist, they remain formulaic but not relationally based. This confirms the point put across by Liu et al. (2025) that AI- generated empathy is seen as simulated, but not really experienced. Consequently, AI uses formal correctness, yet does not create a strong connection of any significance on an emotional level.

The informal tone is more common among the Iraqi EFL learners with the aim of decreasing social distance and increasing relational proximity. This helps in more natural, interactive, socially warm communication. Instead, AI is more consistently formal and can only be modified to structural practices, and not adaptations to relational ones. This confirms the results obtained by Shams et al. (2024), which conclude that informal language enhances perceived social presence and perceptions of communicative warmth. Therefore, although AI is polite and correct, it is not flexible enough to allow natural interpersonal communication.

In all 14 scenarios, statistical analysis revealed that only five scenarios (1, 3, 5, 7, and 11) had significant differences ($p < 0.05$), and the other nine scenarios did not have significant differences ($p > 0.05$). This shows that on a quantitative level, AI and Iraqi EFL learners tend to generate the same degree of frequency of apology strategies in most circumstances. Nonetheless, due to the considerable variation observed in particular contexts, it can be inferred that divergence is more prominent in situations where the context or situations are socially complicated. The difference in Scenario 7 ($p = 0.011$) was the most striking because it shows that AI would have more and repeated outputs of apology in comparison with human learners. These statistical results support the notion that similarity on the surface does not imply the same on the pragmatic depth. In general, though the statistical evidence includes partial convergence in terms of frequency of patterns, the quantitative analysis shows clearly that the Iraqi EFL learners are far more pragmatic in their awareness, contextual adaptation, and interpersonal sensitivity. Conversely, AI responses are structurally identical but pragmatically limited and support the inference that AI is merely a reproduction of apology forms that do not exhaust the socio-pragmatic role.

The apologies generated by AI frequently become formulaic as big language models are based on common apology templates by using high-frequency patterns observed in training data and failing to introduce new words or phrases to devise original, non-apologetic expressions. Furthermore, the aim of the interaction and safety conditions promotes politeness, risk-aversion, and non-offensive answers and restricts the contextual and emotional dispersion. Consequently, such systems are more geared towards generic politeness, as opposed to cultural or context - sensitive interaction, and generate less flexible and uniform apology escape strategies.

Conclusion

The purpose of this research was to examine and contrast the results of apology plans generated by Iraqi EFL students and AI-generated responses in various contextual settings, according to accepted pragmatic frames. The results demonstrate that the two groups are dependent on the core strategies of apologies, including IFIDs, acknowledgment of responsibility, explanations, offers to repair, and regret. But there are definite variations in their practical implementation. AI-generated apologies are fully structured, conforming, and repeatable, grammatically accurate but contextually insensitive, lack emotionally charged wording, and interpersonal diversity.

Conversely, Iraqi EFL learners are more pragmatically flexible as they modify their apologies based on social distance, power relationships, and situational factors. In general, the findings suggest that AI is competent in terms of structural level, whereas Iraqi EFL learners exhibit higher socio-pragmatic competence and communicative flexibility.

The research has significant implications for language teaching and AI-generated discourse studies. It emphasizes that AI cannot be able to completely replicate human pragmatic competence, especially when dealing with emotionally sensitive and situationally specific speech acts like apologies. In the case of EFL teaching, the results underscore the importance of teaching pragmatic awareness and linguistic accuracy, as well as the impact of social factors on language use in actual communication. The research is also relevant to AI discourse studies because it demonstrates that AI cannot be able to develop both correct language forms and the context and emotional background that can support natural communication between humans.

The current research is limited to Iraqi EFL university students and to one speech act (apology), and it relies on evaluating judgments rather than on immediate interactive data. These restrictions can narrow the generalizability of the results; further research must involve a larger sample of culturally and proficiency diverse participants, test more pragmatically complex communication acts, and better study the process of real-time human-AI interaction to gain a better idea of how culture, context, and emotion influence the successful communication in AI-mediated communication.

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Appendices

Appendix

A. *Summary of the 14 DCT scenarios*

Scenario	Context / Full Description
1	Your professor lends you a book, and you lose it. When you see your professor, what do you say to the professor?
2	You leave the right paper at home and turn in the wrong paper to your professor. How would you apologize to your professor?
3	You have lost one of your professor's important files. How would you apologize to your professor?
4	While on a bus, you accidentally step on a girl's foot. You do not know her. What would you say to apologize?
5	You accidentally splash a glass of water on a boy's computer, causing it to collapse. You do not know him. What would you say to apologize?
6	Your alarm did not go off, and you are half an hour late for an important meeting with a colleague at work. What would you say?
7	You are a professor and arrive twenty minutes late for an appointment with a student who has arrived on time. How would you apologize to the student?
8	You are a professor and have lost the only copy of a student's graduation thesis. How would you apologize to the student?
9	You are a professor who informed students you would give an exam today, but you forgot the exam papers. How would you apologize to the students?
10	At a restaurant, you change your mind after the food has been served. How would you apologize and request a change in your order?
11	You were supposed to meet a friend for a joint project at 2 p.m., but you arrived one hour late. How would you apologize to your friend?
12	While visiting your best friend, he serves coffee in his favorite mug. The mug falls from your hand and breaks. How would you apologize to your friend?
13	You borrowed a classmate's homework, submitted your own, and failed to return his/hers. How would you apologize to your classmate?

14	You were using a friend's computer and accidentally erased an important paper s/he had been working on for two weeks. How would you apologize to your friend?

B. *Statistical comparison of AI and human apology strategies across scenarios*

Scenario	Respondent	Total Frequency	P. Value (Sig.)	Statistical Significance
1	AI Human	318 292	0.029 < 0.05	Significant
2	AI Human	288 300	0.08 > 0.05	Insignificant
3	AI Human	230 210	0.028 < 0.05	Significant
4	AI Human	183 203	0.96 > 0.05	Insignificant
5	AI Human	305 236	0.048 < 0.05	Significant
6	AI Human	260 146	0.72 > 0.05	Insignificant
7	AI Human	332 206	0.011 < 0.05	Significant
8	AI Human	280 246	1 > 0.05	Insignificant
9	AI Human	285 210	0.87 > 0.05	Insignificant
10	AI Human	182 213	0.60 > 0.05	Insignificant
11	AI Human	59 148	0.01 < 0.05	Significant
12	AI Human	222 274	0.65 > 0.05	Insignificant
13	AI Human	261 291	0.98 > 0.05	Insignificant
14	AI Human	296 291	0.89 > 0.05	Insignificant